

RECEIVED
CENTRAL FAX CENTER

NOV 01 2007

GS 0647 A

AMENDMENTS TO THE CLAIMS

The listing below of the claims will replace all prior versions and listings of claims in the present application:

Listing of Claims:

Claim 1 (currently amended): A device for detecting the speed of an endless torque-transmitting means of a continuously variable transmission that includes two conical pulley pairs rotatably carried on spaced parallel axes and around which the endless torque-transmitting means passes, wherein the axial spacing between respective conical disks defining the pulley pairs can be changed inversely so that the endless torque-transmitting means moves independently between each transmission ratio and is in frictional engagement with the conical surfaces of the conical disks, said device comprising: a sensor positioned opposite to and facing the endless torque-transmitting means for detecting the linear speed of the endless torque-transmitting means as it passes the sensor, wherein the endless torque-transmitting means is a plate-link chain that includes pins that interconnect adjacent chain links, and the sensor detects pins as they pass the sensor; wherein the sensor is located at a position relative to the path of movement of the endless torque-transmitting means that is independent of the rotational speed relationship of the conical pulley pairs and is connected to a control unit within which plate-link chain structural data are stored, and which determines the speed of the plate-link chain based upon the number of detected pins and time intervals between pin detections; and wherein the plate-link chain has different pin spacings

GS 0647 A

wherein at least one of the different pin spacings and at least a number of successive pin spacings are stored in the control unit, and wherein the control unit determines the speed of the plate-link chain after receiving detected successive pin spacings.

Claim 2 (previously presented): A device according to claim 1, wherein the sensor is carried on a linear guide bar that guides a slack linear strand of the endless torque-transmitting means and that can pivot about an axis that is parallel to the axes of the conical pulley pairs.

Claim 3 (original): A device according to claim 2, wherein the guide bar is carried on a fixed support positioned between the conical pulley pairs.

Claim 4 (canceled)

Claim 5 (currently amended): A device according to claim ~~[[4]]~~ 1, wherein the sensor is a proximity sensor that detects end faces of the pins.

Claim 6 (canceled)

Claim 7 (currently amended): A device according to claim 6 1, wherein the stored plate-link structural data include the number of pins carried by the plate-link chain and the spacing between pins.

GS 0647 A

Claim 8 (canceled)

Claim 9 (original): A device according to claim 2, wherein the fixed support is an oil pipe.

Claim 10 (original): A device according to claim 2, wherein the guide bar is displaceable in a direction that is substantially perpendicular to the movement direction of the endless torque-transmitting means.

Claim 11 (original): A device according to claim 2, wherein the pivot axis of the guide bar is positioned between the pulley axes and is within a loop defined by the endless torque-transmitting means.

Claim 12 (currently amended): A device according to claim ~~[[4]]~~ 1, wherein end faces of the pins are in frictional engagement with the conical surfaces of the conical disks.

Claim 13 (allowed): A continuously variable transmission including a device for detecting the speed of an endless torque-transmitting means, said transmission comprising: two conical pulley pairs rotatably carried on spaced parallel axes; an endless torque-transmitting means that passes around the conical pulley pairs to transmit torque therebetween; wherein the axial spacing between respective

GS 0647 A

conical disks defining the pulley pairs can be changed inversely to change the transmission ratio of the transmission; wherein the endless torque-transmitting means is a chain that moves radially relative to the axes of rotation of the conical disk pairs and independently between each transmission ratio and includes a plurality of spaced pairs of parallel pins each extending parallel to the axes of the conical pulley pairs and having a predetermined spacing between successive pin pairs, the pin pairs having pin ends that frictionally engage conical surfaces of the conical disks during movement of the endless torque-transmitting means around the conical disk pairs; a guide bar pivotable about a pivot axis that is parallel to the axes of rotation of the conical disk pairs for linearly guiding the endless torque-transmitting means as it moves between the conical disk pairs, wherein the guide bar includes a passageway section defined by pairs of spaced walls that surround and enclose a portion of the chain as it moves along the guide bar to define a chain-receiving opening through which the chain passes as it moves between the conical disks; and a sensor carried by the guide bar at the passageway section and extending into the chain-receiving opening, wherein the sensor is positioned opposite to and facing the ends of the pin pairs of the endless torque-transmitting means for detecting end faces of the pin pairs as they pass the sensor during movement of the endless torque-transmitting means, wherein the sensor provides an output to a control unit in which data relative to spacings between ends of successive pin pairs are stored, whereby the linear speed of the endless torque-transmitting means is determined based upon the stored pin pair end face spacing

GS 0647 A

and the pin pair end faces detected by the sensor as the ends of the pins pin pairs of the endless torque-transmitting means pass the sensor.

Claim 14 (allowed): A continuously variable transmission according to claim 13, wherein the pin pairs of the endless torque-transmitting means are uniformly spaced from each other at a predetermined uniform spacing along the chain movement direction.

Claim 15 (allowed): A continuously variable transmission according to claim 13, wherein the endless torque-transmitting means includes pin pairs that have different spacings between adjacent pin pairs, in addition to having pin pairs that are equally spaced from each other along the chain movement direction.

Claim 16 (allowed): A continuously variable transmission according to claim 15, wherein the control unit has stored within it a number of equal, successive pin pair spacings for determining the linear speed of the endless torque-transmitting means based upon detection by the sensor of a number of pin pairs having at least one of the stored pin pair spacings.